430 Rec'd PCT/PTO 30 AUG 1999

08/30/99 jc674 U.S. PTO

U.S. Application No.
Unknown

International Application No.
PCT/DE98/00569

Attorney Docket No.
RIEB3.001APC

09/380412

Date: August 30, 1999

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 USC 371

International Application No.:	PCT/DE98/00569
International Filing Date:	February 26, 1998
Priority Date Claimed:	February 28, 1997
Title of Invention:	CORDLESS COMMUNICATION SYSTEM COMPATIBLE WITH A PUBLIC MOBILE COMMUNICATION SYSTEM
Applicant(s) for DO/EO/US:	Patrik Ljungstroem, Walter Mohrs and Frieder Pernice

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. (X) This is a **FIRST** submission of items concerning a filing under 35 USC 371.

2. () This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 USC 371.

3. (X) This express request to begin national examination procedures (35 USC 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 USC 371(b) and PCT Articles 22 and 39(1).

4. (X) A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.

5. (X) A copy of the International Application as filed (35 USC 371(c)(2))

 a) () is transmitted herewith (required only if not transmitted by the International Bureau).
 b) (X) has been transmitted by the International Bureau.
 c) () is not required, as the application was filed in the United States Receiving Office (RO/US).

6. (X) A translation of the International Application into English (35 USC 371(c)(2)).

7. (X) Amendments to the claims of the International Application under PCT Article 19 (35 USC 371(c)(3))

 a) () are transmitted herewith (required only if not transmitted by the International Bureau).
 b) () have been transmitted by the International Bureau.
 c) () have not been made; however, the time limit for making such amendments has NOT expired.
 d) (X) have not been made and will not be made.

8. () A translation of the amendments to the claims under PCT Article 19 (35 USC 371(c)(3)).

9. () An oath or declaration of the inventor(s) (35 USC 371(c)(4)).

10. (X) A copy of the International Preliminary Examination Report with any annexes thereto, such as any amendments made under PCT Article 34.

11. (X) A translation of the annexes, such as any amendments made under PCT Article 34, to the International Preliminary Examination Report under PCT Article 36 (35 USC 371(c)(5)).

KNOBBE, MARTENS, OLSON & BEAR, LLP
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Items 11. to 16. below concern other document(s) or information included:

12. () An Information Disclosure Statement under 37 CFR 1.97 and 1.98.

13. () An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.

14. (X) A FIRST preliminary amendment.
() A SECOND or SUBSEQUENT preliminary amendment.

15. () A substitute specification.

16. () A power of attorney and/or address letter.

17. (X) International Application as published (cover only)

18. (X) International Search Report.

19. () Small Entity Statement.

20. (X) PCT Form PCT/IPEA/402.

21. (X) PCT Form PCT/IB/308.

22. () PCT request form.

23. (X) A return prepaid postcard.

24. () The following fees are submitted:

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				FEES
	BASIC FEE			$840
CLAIMS	**NUMBER FILED**	**NUMBER EXTRA**	**RATE**	
Total Claims	11 - 20 =	0 ×	$18	$0
Independent Claims	2 - 3 =	0 ×	$78	$0
Multiple dependent claims(s) (if applicable)			$260	$0
	TOTAL OF ABOVE CALCULATIONS		$840	
Reduction by 1/2 for filing by small entity (if applicable). Verified Small Entity statement must also be filed. (NOTE 37 CFR 1.9, 1.27, 1.28)			$0	
	TOTAL NATIONAL FEE			$840
	TOTAL FEES ENCLOSED			$840
		amount to be refunded:		$0
		amount to be charged:		$0

25. (X) The fee for submission of the translation of the international application or any annexes to the IPER set forth in 37 CFR 1.492(f) will be paid upon submission of those items.

26. (X) The fee for later submission of the signed oath or declaration set forth in 37 CFR 1.492(e) will be paid upon submission of the declaration.

27. (X) A check in the amount of $840 to cover the above fees is enclosed.

28. () Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). $40 per property.

29. (X) The Commissioner is hereby authorized to charge only those additional fees which may be required to avoid abandonment of the application, or credit any overpayment to Deposit Account No. 11-1410. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

KNOBBE, MARTENS, OLSON & BEAR, LLP
620 Newport Center Drive
Sixteenth Floor
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Signature

John M. Carson
Printed Name

34,303
Registration Number

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Ljungstroem, et al.	) Group Art Unit Unknown
Appl. No.	:	Unknown	)
Filed	:	Herewith	)
For	:	CORDLESS COMMUNICATION SYSTEM COMPATIBLE WITH A PUBLIC MOBILE COMMUNICATION SYSTEM	)
Examiner	:	Unknown	)

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PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Prior to examination of the above-captioned application, please amend the translation of the originally filed PCT application as follows:

IN THE SPECIFICATION:

On page 1, line 4, please insert --Field of the Invention--.

On page 1, line 5-6, please replace "according to the preamble of Claim 1" with --and a method of operating the cordless communication system.--

On page 1, between lines 6 and 7, please insert --Background of the Invention--.

On page 1, between lines 23 and 24, please insert --Summary of the Invention--.

On page 1, lines 30-31, please replace "the invention is characterized by the features of Claim 1" with --one aspect of the invention involves a method of operating a cordless communication system having a mobile terminal of a public mobile communication system and having a base station. The base station is connectable to a public fixed network and compatible at an air interface with the mobile communication system which has at least one authentication function. A read and write unit of the base station reads and writes from and to, respectively, at least one identification module. Sections of data of the identification module used in the base station are identical to sections of data stored on a chip card of an access-authorized mobile terminal. The read data from the identification module is processed through software implemented in the base station. The mobile terminal is authenticated with regard to the base station through the processed data, wherein the base station fulfills the same functions and tasks as a home location register and, respectively, an authentication center of the mobile communication system. The mobile terminal is operated through the public fixed network if the authentication has been successful.--

On page 4, between lines 20 and 21, please insert --Brief Description of the Drawings--.

On page 4, between lines 24 and 25, please insert --Detailed Description of the Invention--

On page 7, line 1, please replace "Claims" with --WHAT IS CLAIMED IS:--

IN THE ABSTRACT:

Please add an abstract as follows:

A cordless communication system includes a mobile terminal of a public mobile communication system and a base station. The base station is connectable to a public fixed network and compatible at an air interface with the mobile communication system which has at least one authentication function. A read and write unit of the base station reads and writes from

and to, respectively, at least one identification module. Sections of data of the identification module used in the base station are identical to sections of data stored on a chip card of an access-authorized mobile terminal. The read data from the identification module is processed through software implemented in the base station. The mobile terminal is authenticated with regard to the base station through the processed data, wherein the base station fulfills the same functions and tasks as a home location register and, respectively, an authentication center of the mobile communication system. The mobile terminal is operated through the public fixed network if the authentication has been successful.

IN THE CLAIMS:

Please cancel Claims 1 - 11 without prejudice.

Please add new Claims 12 - 22 as follows:

12. A method of operating a cordless communication system comprising a mobile terminal of a public mobile communication system and having a base station which is connectable to a public fixed network and compatible at an air interface with the mobile communication system that has at least one authentication function, comprising:

reading and writing from and to, respectively, at least one identification module through a read and write unit of the base station, wherein sections of data of the identification module used in the base station are identical to sections of data stored on a chip card of an access-authorized mobile terminal;

processing data read from the identification module through software implemented in the base station;

authenticating the mobile terminal with regard to the base station through the processed data, wherein the base station fulfills the same functions and tasks as a home

location register and, respectively, an authentication center of the mobile communication system; and

operating the mobile terminal through the public fixed network if the authentication has been successful.

13. The method of Claim 12, further comprising blocking authorization of the mobile terminal through a network carrier of the mobile communication system to log into the base station of the cordless communication system.

14. The method of Claim 12, further comprising storing other data on the identification module in a tamper-proof manner, the other data including allowed frequencies, a maximum permitted output powers for the base station and the mobile terminal, allowed services, and initialization parameters which a network carrier desires to influence and which constitute a general framework for the operation of the base station of the cordless communication system.

15. The method of Claim 12, further comprising operating the base station of the cordless communication system so that the air interface operates in a frequency spectrum of a public mobile communication system.

16. The method of Claim 12, wherein the transmitted data is encrypted at the air interface.

17. The method of Claim 12, further comprising programming a timer within the base station to a predetermined time by a network carrier, and automatically resetting the timer by a subscriber if an authorized use occurs, wherein the base station, if not used after the predetermined time has lapsed, loses authorization to operate a transmitter at frequencies assigned to the mobile communication system.

18. The method of Claim 17, further comprising restarting the base station if the base station is automatically shut off due to lapse of the predetermined time.

19. The method of Claim 18, further comprising permitting said restarting of the base station only within a predefined time window.

20. A cordless communication system for the operation of a mobile terminal of a mobile communication system with a base station that is connected to a public fixed network and that is compatible at an air interface with the mobile communication system that has at least one authentication function, comprising:

a read/write unit within a base station, the read/write unit configured to read and write information from and to, respectively, at least one identification module, wherein sections of data of the identification module used in the base station are identical to sections of data on a chip card of an access-authorized mobile terminal; and

software implemented in the base station for processing of data read from the identification module and for authenticating the mobile terminal relative to the base station through the processed data, wherein the base station fulfills the same functions and tasks as the home location register and, respectively, the authentication center of the mobile communication system.

21. The cordless communication system of Claim 20, wherein the identification module is a chip card configured for a predetermined standard.

22. The cordless communication system of Claim 21, wherein the predetermined standard is selected from the group consisting of ISO ID-1, ID-000, DCS 1800, and PCS 1900.

Appl. No. : **Unknown**
Filed : **Herewith**

REMARKS

The foregoing amendments are to more closely conform the application to U.S. practice.

No new matter is added. Entry of the amendments is respectfully requested.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 8/30/99

By: _____

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CORDLESS COMMUNICATION SYSTEM COMPATIBLE WITH A PUBLIC MOBILE COMMUNICATION SYSTEM

The invention refers to a cordless communication system that is compatible with a public mobile communication system and a method of operating the cordless communication system according to the preambles of the independent claims.

In today's mobile communication systems, a clear distinction exists between public mobile wireless systems, such as the GSM System and private cordless communication systems that operate according to, e.g., the in DECT standard [Digital European Cordless Telecommunication]. This has led to different system devices that can be used either for mobile wireless operation or for cordless operation.

Attempts have been made before to design terminals, in particular, mobile terminals, that can be used in two different mobile communication systems. However, due to the incompatibility of the different standards, relatively user-unfriendly and expensive solutions have resulted.

Another point of departure lies in arranging the base station of a cordless communication system in such a way as to make it compatible with a public mobile communication system, i.e., so that it can communicate with conventional mobile terminals. However, there is a lack of suitable suggestions for solving the problem of compliance with the required security functions. Here, the problem is that the base station of the cordless communication system is connected to a wire-bound fixed network, which makes it impossible to influence the base station via the mobile communication system.

WO-A-95/24106 relates to a secured personal communication system based on a base station connected to the public network. The base station allows operation of mobile terminals of a mobile communication system. A conventional authentication method of the mobile communication system provides for the security of the communication, wherein the base station is connected to the security installations of the mobile communication system through the public fixed network, and exchanges security information with the security features to allow registration of the mobile

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terminal at the base station. Hence, this method is based upon an exchange of the authentication sequences between the mobile terminal and the base station on one side, and between the base station and installations of the mobile communication system on the other side.

WO-A-95/02927 discloses a method of controlling transmit/receive devices of radio communication systems. The transmit/receive device is equipped with a device to read from a so-called Smart Card which stores information regarding frequencies that can be used by the transmit/receive device and that are permitted by the network carrier.

It is the task of the invention to suggest a cordless communication system with security functions that is compatible with a public mobile communication system and permits the use of suitable mobile terminals.

Another task is that the cordless communication system, despite the fact that it is a private system, should offer the possibility of being installed and operated under the control of the respective mobile communication network carrier.

In order to solve the posed task the invention is characterized by the features of the independent claims.

The invention consists basically in that the base station of the cordless communication system is equipped with a suitable read/write device by means of which information can be read from or written to conventional identification modules, e.g., chip cards, SIMs [Subscriber Identity Modules], generally all active data carriers for information storage and processing. In combination with suitable software an the data stored in the identification module, the base station of the cordless communication system is now in a position to take over the functions of a base station of a mobile communication network with authentication functions, more precisely, the functions of an HLR (Home Location Register) and of an AUC (Authentication Center), respectively. This permits every authorized mobile terminal to log in with the base station of the cordless communication system and to communicate via the fixed network.

When used below, the term 'base station' if not otherwise indicated refers to the base station of the cordless communication system.

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One of the many possibilities of the concept of the invention is described below using the example of a GSM mobile communication system. however, the invention is not limited to the GSM mobile communication system.

By installing in the base station of the cordless communication system one or more chip cards readers/writers and a common SIM chip card, the operation of the base station can function under the control of the GSM network carrier and security features for "GSM cordless operation" can be offered to the subscriber like those offered in GSM mobile broadcasting networks, such as the authentication and encryption of the call data. It is important that the chip card associated with the operation of the base station is issued solely by the network carrier, as is usually the case with GSM mobile terminals.

The chip card used in the base station together with suitable software installed in the base station takes over the functions of the Home Location Register (HLR), and of the Authentication Center (AUC), respectively, which means that the mobile terminal is authenticated only by the base station of the cordless system and not, as is usually the case, by the cellular network. A random number is generated by the software of the base station and, by means of K_I keys that are identically stored in the chip card of the base station and in the chip card of the mobile terminal and that by means of the GSM system-specific A3 algorithm, it is transformed into an SRES response (authentication result). If the two authentication results - that of the base station and that of the mobile terminal - are identical, the authentication is successful. This authentication procedure is similar to that of the GSM system.

In known fashion, the K_I key and the A_8 algorithm derive the key K_c from the same random number; it serves for the encrypting of the communication at the wireless interface in cordless operation (as in the GSM system).

Aside from the usual user-specific data, additional data, e.g., allowed frequencies, the maximum allowable output power for the base station and for the mobile terminal, the permitted services (telephony, data transfer, fax etc.), and all other initialization parameters that the network carrier would like to influence and that the base station is allowed to use, can be stored in such a way that it is protected against manipulation on the SIM of the base station. This corresponds, at least for the services,

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to the known authentication administration in the Home Location Register (HLR) of a GSM cellular network.

By appropriate key management, it becomes feasible for several users, e.g., family members, to communicate through one and the same base station. For this purpose, as a first option, each subscriber who wishes to use the base station owns his own SIM card that can be inserted at the base station. Accordingly, the base station would require several card readers. As another option, data and keys for several subscribers can be stored on the SIM card of the base station.

Also, it is possible to use a group key in the base station that permits the authentication of several individual group members.

It is important that the chip card used in the base station contain the same core information as the chip card of the GSM mobile terminal that is to be operated with the base station. Only if the personal user information, in particular, the security functions, on both cards is identical, will the mobile terminal be in a position to be authenticated and to log into the base station.

Once the regular GSM-subscriber relationship is terminated, the authorization to communicate with the base station is canceled in the SIM card of the mobile terminal, preferably via the GSM wireless interface. This makes further useful operation of the base station on the frequencies that have been made available by the network carrier impossible since the mobile terminal can no longer be authenticated by the base station.

A possible embodiment provides that the base station include a timer that is programmed to a certain time by the network carrier and that is reset automatically each time the base station is used by the subscriber. When the base station is not in use, e.g., after termination of the user relationship, the base station, after the programmed time period has passed, loses its authorization to operate the transmitter on the frequencies of the mobile communication system. If the base station is not used for an extended period of time, the function of the timer, through disconnection from the base station, can be frozen.

In the event that the subscriber, e.g., before leaving for an extended vacation, forgets to switch off the base station, and the base station automatically deactivates itself, an emergency restart possibility is provided within a defined time window.

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In order to realize a GSM-compatible base station, it must first be equipped with a card reader for GSM-SIM cards. In addition, the base station must be capable of transmitting and receiving over standard GSM frequencies. The functions of the base station are controlled through suitable software, as is used, e.g., in GSM terminals, and carry out and control the usual GSM authentication and other functions.

Only in minor software modifications are necessary in the mobile terminal.

Figure 1 schematically shows an example of physical configuration of the system according to the invention;

Figure 2 schematically shows an example of the logical configuration of the system according to invention.

In Figure 1 several components of a public mobile communication system are shown . There is a mobile terminal 3 that is located in the service area of a base station 4 of the mobile communication system, with which it can communicate in an encrypted mode via the wireless interface. The base station 4 of the mobile communication system is connected to an exchange 5 that has access to a public fixed network 9. The exchange 5 is also connected to the home location register (HLR) and the authentication center (AUC) of the cellular network. If the mobile terminal 3 wishes to log into the mobile communication network, authentication of the mobile terminal 3 is conducted in a known manner within the home location register, and respectively, the authentication center 6.

A base station 1 (HBS) of a cordless communication system is also shown that is connected to a public switched telephone network 2 (PSTN, ISDN). Due to the low-power output, the area covered by the base station is relatively small. Usually the base station 1 is located within one or more base stations 4 of a public mobile communication network.

As shown in Figure 2, the mobile terminal 3 is authenticated for cellular operation via the cellular network with the aid of a specific identification key (K_I key) that is stored, on the one hand, in the SIM card 8 of the mobile terminal 3 and, on the other hand, in the home location register 6 (HLR) and, respectively, in the authentication center (AUC) of the mobile communication system.

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According to the invention, base station 1 of the cordless communication system is equipped with an identification module 7 (e.g., also with an SIM card) and with suitable software in order to fulfill, in connection with the data stored on the identification module 7, the same functions and tasks that are fulfilled by the home location register and, respectively, the authentication center of the mobile communication system, so that the mobile terminal 3, as long as it is located within the service are of the cordless communication system and has access authorization, can authenticate, log in, and communicate in an encrypted manner at the pertinent base station 1.

This is only possible if essential parts of the data of the identification module 7 that is used in the base station 1 are identical to the data stored on the chip card (SIM) of the access-authorized mobile terminal 3.

According to the invention, the base station 1 of the cordless system is now compatible with the mobile communication system, i.e., the base station 1 of the cordless system transmits periodically in standby mode a specific ID in order to indicate its presence and readiness for operation. The mobile terminal 3 scans the frequency band for the specific ID of the base station 1. When the mobile terminal 3 enters the service area of the base station 1 and receives its ID without interference, the mobile terminal 3 attempts to log into the base station 1, as described above. For this purpose, as in the GSM system, authentication and initialization messages are exchanged between base station 1 and mobile terminal 3. If the authentication was successful, the mobile terminal 3 can communicate via the fixed network 2 without detour through the mobile communication network.

It is , of course, also possible for several authorized mobile terminals 3 to communicate with each other in an encrypted manner, without the participation of a public fixed network 2, 9 or of the mobile communication network, via the base station 1 of the cordless communication network.

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Claims amended:

1. Process for the operation of a cordless communication system with a mobile terminal (3) of a public mobile communication system with a base station (1) that is connected to the public fixed network (2) and that is compatible at the wireless interface with the mobile communication system that features at least on authentication function characterized by the capability of the base station (1) to read/write information from/to at least one identification module (7) by means of a reader/writer, wherein parts of the data of the identification module (7) used in the base station (1) are identical to the data stored on the chip card (SIM) of the access-authorized mobile terminal (3),

the capability to process the read data by means of software implemented in the base station (1),

authentication of the mobile terminal (3) with regard to the base station (1) by means of data read and processed by the identification module (7), wherein the base station (1) fulfils the same functions and tasks as the home location register and, respectively, the authentication center of the mobile communication system, and

after successful authentication the operation of the mobile terminal (3) through the public fixed network (2).

2. Process according to Claim 1, characterized in that the network carrier of the mobile communication system can block the authorization of the mobile terminal (3) to log into the base station (1) of the cordless communication system.

3. Process according to Claims 1 or 2, characterized in that besides individual subscriber data, other data for the purpose of authentication can be stored on the identification module (7), in tamper-proof fashion, namely, the allowed frequencies, the maximum permitted output power for the base station (1) and for the mobile terminal (3), the permitted services, and all other initialization parameters that the network carrier desires to influence and that constitute the general framework for the operation of base station (1) of the cordless communication system.

4. Process according to Claims 1-3, characterized in that the wireless interface of the base station (4) of the cordless communication system operates in the frequency spectrum of a public mobile communication system.

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5. Process according to Claims 1-4, characterized in that the transmitted data is encrypted at the wireless interface.

6. Process according to Claims 1-5, characterized in that the base station (1) includes a timer that is programmed to a specific time by the network carrier, and that is automatically reset under the condition of legal use by the subscriber, wherein the base station (1), if it is not used after the preset time period has passed, loses its authorization to operate its transmitter on the frequencies of the mobile communication system.

7. Process according to Claim 6, characterized in that if the base station (1) is automatically shut off due to disconnection of the timer, it is possible to emergency-restart its operation.

8. Process according to Claim 7, characterized in that the operation of the base station (1) can only be emergency-restarted within a defined time window.

9. Cordless communication system for the operation of a mobile terminal (3) of a mobile communication system with a base station (1) that is connected to the public fixed network (2) and that is compatible at the wireless surface with the mobile communication system that features at least one authentication function characterized in that

a reader/writer for reading/writing of information from/to at least one identification module (7) is incorporated in a base station (1), wherein the parts of the data of the identification module (7) used in the base station (1) are identical to those on the chip card (SIM) of an access-authorized mobile terminal (3) and

software is implemented in the base station (1) for the processing of the read data and for the authentication of the mobile terminal (3) relative to the base station (1) by means of data that is read and processed by the identification module (7), wherein the base station (1) fulfills the same functions and tasks as the home location register and, respectively, the authentication center of the mobile communication system.

10. Cordless communication system according to Claim 9, characterized in that chip cards (SIM) are used for the identification module (7), which are commonly

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used in mobile communication systems, such as according to ISO ID-1, ID-000, DCS 1800, PCS 1900.

Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

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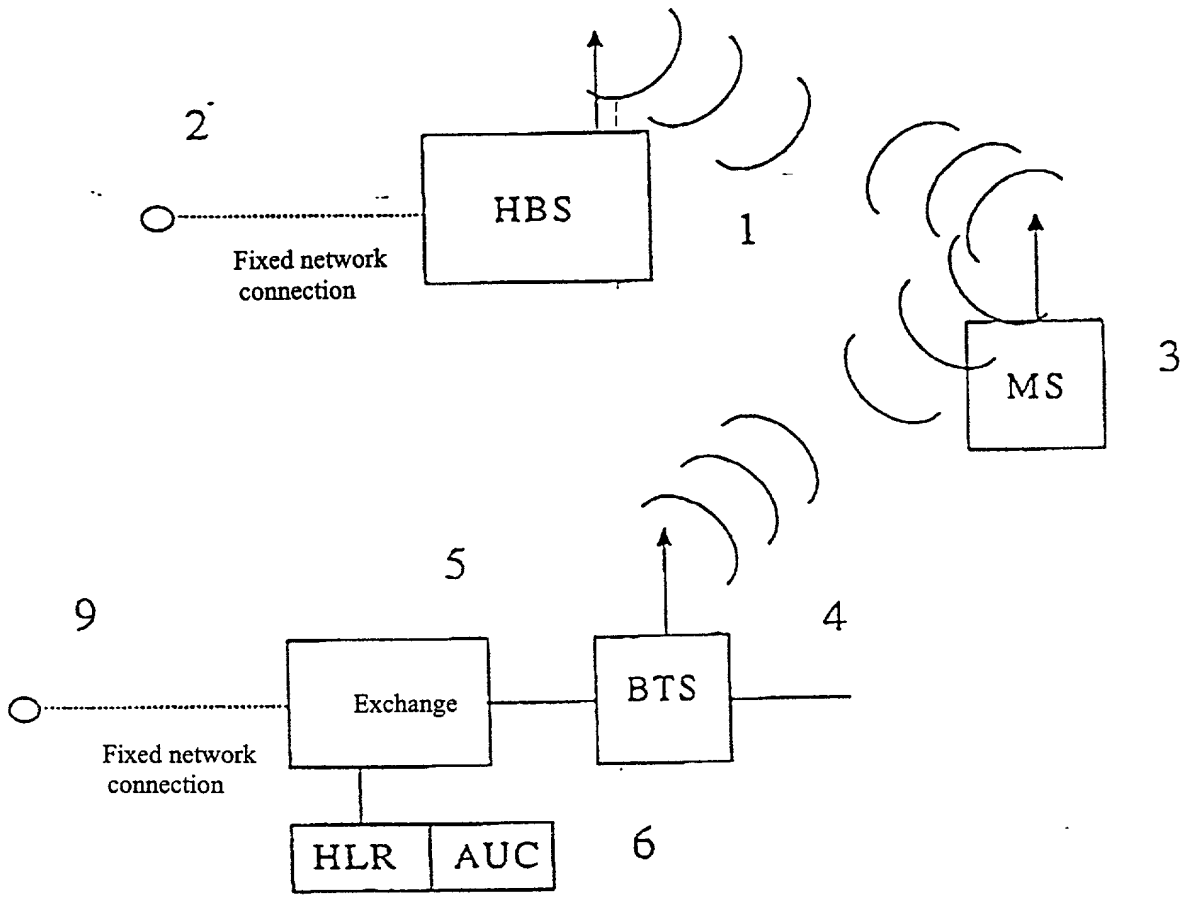


Figure 1. Physical Layout

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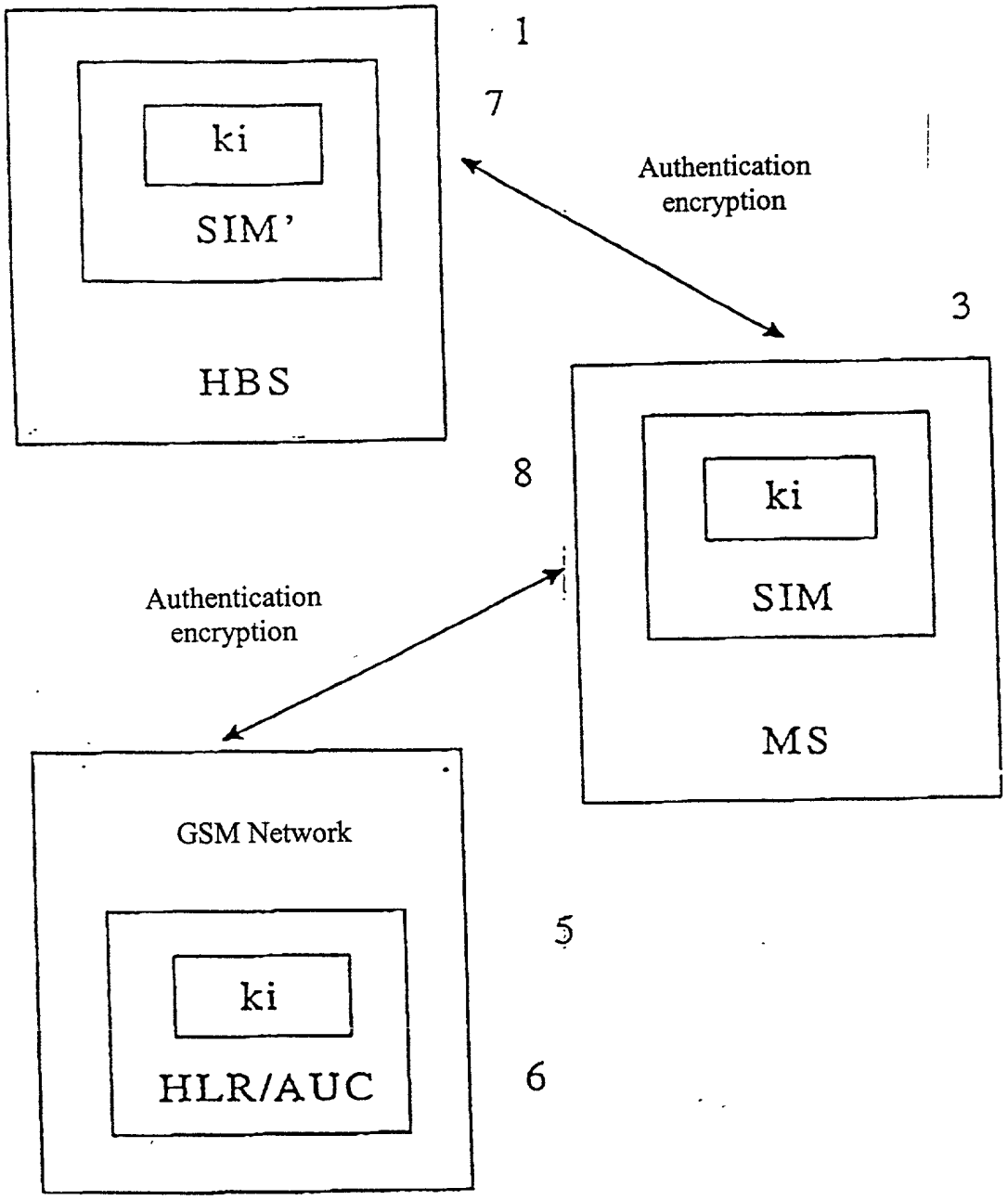


Figure 2. Logical Layout

D1570

Amtsgericht Dieburg

Geschäftsnummer
6 VI P 19/97

OIPE
JAN 19 2000
PATENT & TRADEMARK OFFICE 2800

Erbschein

Der am 05. März 1937 in Magdeburg geborene, zuletzt in Groß-Zimmern wohnhaft gewesene

Anton Reinhard Frieder Pernice

ist am 23. August 1997 daselbst verstorben und allein beerbt worden von:

seiner Ehefrau

Edith Irene Pernice geb. Dreher,
geb. 27.11.1943,
Schillerstr. 11, 64846 Groß-Zimmern.

Bezüglich des 63,75tel des Nachlasses ist Nacherbfolge angeordnet. Sie tritt ein mit dem Tode der Vorerbin. Das Recht des Nacherben erstreckt sich nur auf das Anwesen Schillerstr. 11 in 64846 Groß-Zimmern. Die Vorerbin ist von den gesetzlichen Beschränkungen befreit. Nacherben sind die gesetzlichen Erben des Erblassers, derzeit seine Geschwister
a) Christina Weinhold geb. Pernice
b) Holger Pernice
c) Malte Pernice
d) Margaretha Kolb geb. Pernice.

Dieburg, 27.01.1998
A m t s g e r i c h t

Trautmann
Richterin am Amtsgericht

AMTSGERICHT DIEBURG

Beglaubigt
Urkundsbeamter der Geschäftsstelle

OIPE JC50 JAN 19 2000 PATENT & TRADEMARK OFFICE

RIEB3.001APC

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Lungstroem, et al.	Group Art Unit Unknown
Appl. No.	:	09/380,412	
Filed	:	August 30, 1999	
For	:	PUBLIC MOBILE COMMUNICATION SYSTEM COMPATIBLE WIRELESS COMMUNICATION SYSTEM	
Examiner	:	Unknown	

PROOF OF AUTHORITY OF ADMINISTRATOR(TRIX), EXECUTOR(TRIX) OR LEGAL REPRESENTATIVE(S)

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

The declaration for the above-identified application was signed on behalf of the

■ deceased

☐ incapacitated

Inventor Frieder Pernice
(type or print name of deceased

By Edith Pernice
(type or print name(s) of administration(trix), executor(trix), legal representative or all heirs)

Attached is

(check and complete (d) or (e))

(d) ☐ a certificate of the clerk of a competent court or the register of wills that the appointment of the signatory is still in force and effect.

(e) ☒ a certificate from the appropriate court that they are all the heirs and that the estate did not require the appointment of an administrator or that they have the authority corresponding to that of an administrator or heir.

Appl. No. : **09/380,412**
Filed : **August 30, 1999**

(also check and complete (f) and/or (g), if applicable)

(f) ☒ The court papers mentioned above are not in English. An English translation of such papers are also attached.

NOTE: *The translation need not be sworn or affirmed. M.P.E.P. § 409.01(a)*

(g) ☐ A consular officer of the United States has authenticated the signature of the foreign officer attesting to the papers submitted as proof of authority.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 1/13/00

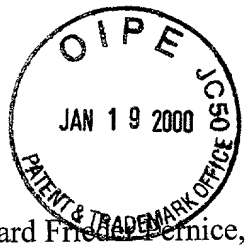
By: Lowell Anderson

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OIPE JC50 JAN 19 2000 PATENT & TRADEMARK OFFICE

Translation



Certificate Of Heirship

Anton Reinhard Frieder Pernice, born on March 5, 1937, last resided in Gross-Zimmern, died on August 23, 1997 and has bequeathed solely to:

his wife
Edith Irene Pernice, neé Dreher,
born 11.27.1943,
Schillerstr. 11, 64846 Gross-Zimmern.

Regarding the 63.75th part of the estate, succession is ordered. Succession is effective at the death of his wife. The right of the successor extends only to the property Schillerstr. 11 in 64846 Gross-Zimmern. The successor is relieved from the legal limitations. Successors are the legal heirs of the testator, at present his siblings

a) Christina Weinhold neé Pernice
b) Holger Pernice
c) Malte Pernice
d) Margaretha Kolb neé Pernice.

Dieburg, January 1, 1998
District Court

Trautman
Judge

PATENT & TRADEMARK OFFICE JAN 19 2000 OIPE JC60

DECLARATION - USA PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled PUBLIC MOBILE COMMUNICATION SYSTEM COMPATIBLE WIRELESS COMMUNICATION SYSTEM; the specification of which:

(a) ☐ is attached hereto; or

(b) X was filed on August 30, 1999 as Application No. 09/380,412 and was amended on _____ (if applicable); or

(c) X was described and claimed in PCT International Application No. PCT/DE98/00569 filed on February 26, 1998, and as amended under PCT Article 19 on _____ (if any) and/or under PCT Article 34 on April 9, 1999 (if any).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above;

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, § 1.56;

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent, design or inventor's certificate or any PCT international application(s) listed below and have also identified below any foreign application(s) for patent, design or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed for the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN APPLICATION(S)

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 U.S.C. § 119
Germany	197 08 189.4	28 February, 1997	✓ YES NO ☐
			☐ YES NO ☐
			☐ YES NO ☐
			☐ YES NO ☐

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below, and insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Prior U.S.A. Application(s)

Application No.: _____ Filing Date: _____ Status: _____

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful, false statements may jeopardize the validity of the application or any patent issued thereon.

1-00 Full name of sole or first inventor: **Patrik Ljungstroem**

Inventor's signature _____

Residence (city and country): **Petersbergweg 14, D-53227 Bonn, Germany** DEX

Citizenship: **Swedish**

Post Office Address: **same as above**

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2-00 Full name of second inventor: **Walter Mohrs**

Inventor's signature _____

Residence (city and country): **Rosenhain 3, D-53123 Bonn, Germany** DEX

Citizenship: **German**

Post Office Address: **same as above**

1-01 Full name of third inventor: **Frieder Pernice (sole successor is Edith Pernice)**

Successor's signature Edith Pernice, geb. Dreher

Residence (city and country): **Schillerstrasse 11, D-64846 Groß-Zimmern, Germany** DEX

Citizenship: **German**

Post Office Address: **same as above**

Vorstehende Unterschrift der Frau Edith Pernice geb. Dreher * 27.11.1943, wohnhaft in 64846 Groß Zimmern, Schillerstr. 11, ausgew. durch BPA., wurde vor mir vollzogen.
Groß-Zimmern, den 03.12.1999

ORTSGERICHT GROSS-ZIMMERN

Conrad, Ortsgerichtsvorsteher.

Send Correspondence To:
KNOBBE, MARTENS, OLSON & BEAR, LLP
Customer No. 20,995

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